m/049/032

March 8, 1999

Mr. Lowell P. Braxton, Director
Division of Oil, Gas and Mining
Department of Natural Resources
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Subject: Response to DOGM's Order Dated March 1, 1999

Dear Mr. Braxton:

The attached information is submitted in response to the "Order" in your letter dated March 1, 1999 requiring Valley Asphalt to submit additional information to be appended to the reclamation plan submitted earlier. Please call me at 485-2270 if you have any questions. Thank you.

Sincerely,

Western Aggregates Holding Corporation/Valley Asphalt, Inc.

R Arjun

Arjun Ram, P.E.
Vice-President
Engineering & Planning

Response to DOGM's Order Dated March 1, 1999

1. a. Sources of fugitive dust resulting from mechanical "mining operations" within the proposed permit area:

(i) Drilling and blasting
(ii) Material handling - loading/unloading
(iii) Crushers
(iv) Conveyors
(v) Screens
(vi) Asphalt plant
(vii) Concrete plant

1.b. Sources of fugitive dust resulting from surface disturbance and stockpiles created by "mining operations" within the proposed permit area:

(i) Haul roads
(ii) Material storage – stockpiles
(iii) Disturbed areas

1.c. Sources of fugitive dust within the proposed permit area that are not a direct consequence of "mining operations":

(i) Undisturbed sparsely vegetated areas that may emit fugitive dust during periods of moderate to high wind speeds

1.d. The sources of air pollution listed in 1.a. and 1.b. have been identified in the attached map. The following is a summary of the production processes to be installed in the pit:

Aggregate Production:
The aggregate material is drilled, blasted and transported to the processing plant where it is loaded into a feeder. The aggregate material is then crushed and screened into various products by a combination of crushers, screens and conveyor belts. The product is stored in stockpiles. The actual products produced will depend on the market demand. The material from the stockpiles is then loaded into trucks and hauled to project sites or loaded into asphalt plant silos.

Concrete Production:
The aggregate material is loaded into bins and conveyed to a weigh hopper. Water, cement and flyash/additives are also weighed and loaded into trucks along with the aggregates. The raw ingredients are mixed to produce concrete in the trucks while being transported to job sites.

Asphalt Production:
The aggregate material is loaded into bins and fed into a drum drier to remove moisture. Asphalt oil is then injected into the dry aggregates and mixed to produce asphaltic concrete. The asphaltic concrete is loaded into a silo from where it is loaded into trucks and transported into job sites.

2. The control technologies to be implemented to mitigate fugitive emissions from the various sources of air pollution in the above processes are described below:

(i) Drilling and blasting: The fugitive dust emissions from drilling and blasting operations will be reduced by wet suppression.

(ii) Material handling – loading/unloading: The material will be maintained in moist condition to minimize fugitive dust emissions during the loading and unloading processes.

(iii) Crushing: Water spray bars will be strategically located throughout the processing plant to reduce fugitive dust emissions. The actual location of the water spray bars depends on the configuration of the processing plant and the type of product produced. Therefore, the location of the spray bars will be decided after the plant is set-up.

(iv) Conveyors: Water spray bars will be strategically located throughout the processing plant to reduce fugitive dust emissions. The actual location of the water spray bars depends on the configuration of the processing plant and the type of product produced. Therefore, the location of the spray bars will be decided after the plant is set-up.

(v) Screens: Water spray bars will be strategically located throughout the processing plant to reduce fugitive dust emissions. The actual location of the water spray bars depends on the configuration of the processing plant and the type of product produced. Therefore, the location of the spray bars will be decided after the plant is set-up.

(vi) Asphalt Plant: The asphalt plant will be equipped with a baghouse or a wet scrubber to control particulate matter emissions. Baghouses and scrubbers represent the best control technologies available to control particulate matter emissions from asphalt plants. Emissions of Volatile Organic Compounds and Hazardous Air Pollutants will be reduced by preventing the asphalt oil from coming in direct contact with the flame. This is accomplished by using plants with double drum or counter-flow drum technology, or by using separate compartments for drying and mixing.

(vii) Concrete Batch Plant: The cement and flyash silos will have bin vents equipped with filter cartridges to collect dust during the loading process.

(viii) Haul Road: The main haul road (access road) to the pit has been paved to minimize fugitive dust emissions. The haul road inside the pit will be maintained in moist condition by spraying water from water trucks at regular intervals. The frequency of watering depends on the season. During the peak summer season the haul roads in the pit will be watered at a minimum of every two hours.

(ix) Material Storage: The water sprays in the aggregate production process will result in moist material stockpiles. Additional water may be sprayed on the surface of the stockpiles as necessary to minimize emissions during windy periods.

(x) Disturbed areas: The mining operation will be performed in a way that minimizes the total exposed area. Disturbed areas will be reclaimed at periodic intervals by revegetation after achieving final grading in those areas. This will minimize the amount of fugitive dust emissions from disturbed areas.

3.a. Frequency for all non-emergency blasting operations: It is possible to predict the occurrence of a blasting operation only a few days before the scheduled day of blasting. Frequency of blasting is dependent on market conditions that vary from month-to-month and from year-to-year. However, the public will be notified in advance as detailed below.

3.b. Notification Protocol: For non-emergency blasting operations, the public will be notified at least 48 hours before the scheduled time of blasting by publishing the date and the time of the blast in The Payson Chronicle, which is a widely read newspaper in southern Utah County. For emergency blasting operations, the public will be notified at least 12 hours before the scheduled

time of the blast by posting information on the date and time of the blast outside Genola City building.

3.c. Audible Warning Sequence and Protocol: A siren will be used to provide audible warning before a blast. The siren will be sounded approximately 15 minutes before the blast. The warning sequence will consist of a continuous sound that will last about 15 seconds. The siren will be distinctly heard in the flyrock zone.

Pre-blast warning: Continuous siren for 15 seconds

3.d. All Clear Protocol: The all-clear protocol will consist of the siren sounded for 10 seconds, a break for 10 seconds and another sound for 10 seconds. The siren will be distinctly heard in the flyrock zone.

Post-blast all-clear: Sound - 10 seconds
Silent - 10 seconds
Sound - 10 seconds